OPERATING INSTRUCTIONS

FOR THE

X-07/CEX-07

HIGH SECURITY ELECTRONIC LOCK

(TYPE 1F)

Please read all instructions carefully before putting your X-07/CEX-07 into operation.

MAS-HAMILTON

MEMBER OF THE UNICAN GROUP

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For 24-hour Technical Support Call:

1-800-950-4744 or (859) 253-4744

OPENING THE X-07
USING THE PRE-SET COMBINATION

Your X-07 lock has been shipped pre-set in the Single Combination Mode with the combination set to 50-25-50.

Practice opening the lock several times before you set a new combination.

Your X-07 uses sophisticated computer security and makes dialing much easier than that of traditional combination locks.

The X-07's computer recognizes a number as being part of a combination when you stop dialing on that number and then reverse dialing directions. This enters the number into the computer memory.

If at any time the dial remains stationary for more than 40 seconds, the computer will reset (LCD will go blank) requiring the operator to redial the entire combination.

Important: The X-07 has protective software that detects robotic dialing. If robotic dialing is detected, the X-07 will not open even if the correct combination has been dialed.

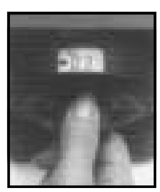
The user should dial with complete full wrist turns. Stopping to regrip produces pauses in dialing activity. This helps the X-07 distinguish between human and robotic dialers.

The X-07 may mistake a human for a robot if the user:

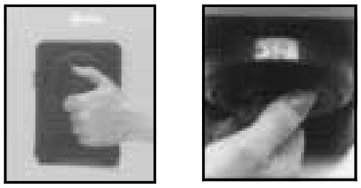
1. Dials more than 1.3 revolutions in either direction with no pauses in dialing activity;
2. Dials with very short, quick repetitive turns, producing very short pauses in dialing activity;
3. Dials a combination in less than 15 seconds.

TO OPEN THE X-07:

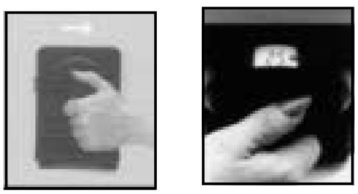




1. Dial left (counterclockwise) 4-6 turns to "power up" the lock. Numbers will appear on the LCD display screen.



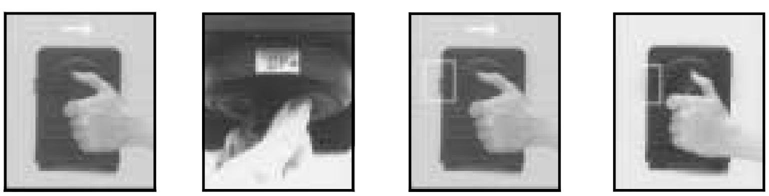
2. Continue dialing left to the first number in the combination (50). Stop. The number 50 will be displayed on the screen.



3. Now dial in the opposite direction (right, clockwise) to 25. Stop.



4. Now dial left to 50. Stop.

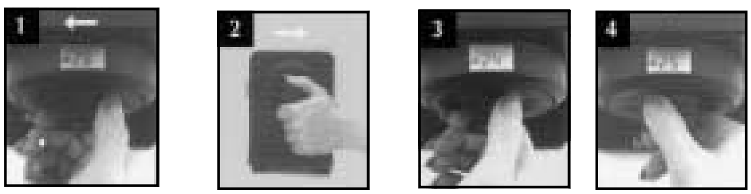


5. Now dial right. After OP (OPen right) appears on the display screen, continue dialing to the right to pull the lock bolt.

IF YOU PASS YOUR TARGET NUMBER WHEN DIALING



A. Example: target number-25.
If you pass your target number by 4 or more (photo 1), continue dialing in the same direction (photo 2), until you reach the target number again (photo 3).



B. Example: target number-25.
If you pass the target number by no more than 3 numbers (photo 1), you may reverse directions slowly (photo 2) and the display will “jump back” 4 numbers (photo 3).
Now you may dial slowly in the original direction to the target number (photo 4).

REDIAL ENTIRE COMBINATION IF ...



A. The Lightning Bolt symbol is displayed.



B. The screen goes blank before the lock bolt is withdrawn.

When you feel comfortable opening the X-07 using the pre-set combination, you are ready to put the lock into operation.

SETTING OPERATING MODE AND NEW COMBINATIONS

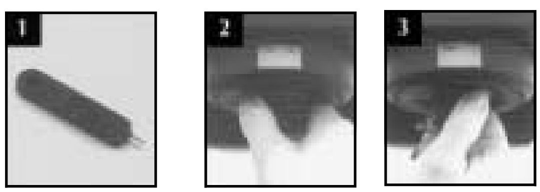
Before you can set a new combination, you must select and set a mode of operation. The X-07 has three modes of operation.

Single Combination Mode: The X-07 will open when one three-number combination is successfully dialed.

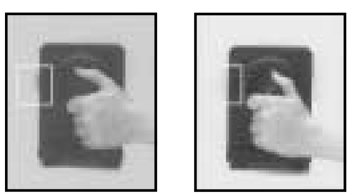
Dual Combination Mode: Two separate combinations are required to open the X-07. Either combination may be dialed first, however the operator must begin entering the second combination within 40 seconds of entering the first combination.

Supervisory/Subordinate Mode or Super/Sub Mode: Two separate combinations are required to open the lock, with the Supervisory Combination controlling access of the Subordinate Combination. The Supervisory Combination must be entered first. There can be unlimited delay between entering the Supervisory Combination and entering the Subordinate Combination. There can also be unlimited openings by the holder(s) of the Subordinate Combination until the Supervisory Combination is redialed.

SETTING THE OPERATING MODE



Use the Change Key (photo 1) provided with your X-07 to set the desired operating mode and combinations. If at any time during the process you see the Key and Lightning Bolt symbols displayed (photo 2), stop the sequence and return to Step 3. If



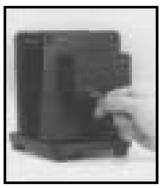
at any time you see a Lightning Bolt symbol displayed (photo 3), stop and return to Step 2.

1. Retract the bolt by entering the correct combination(s). In dual Combination or Supervisory/Subordinate modes, you must enter both combinations.

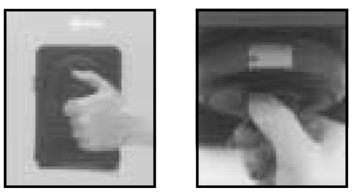


(The first time use the pre-set combination: 50 left-25 right-50 left).

NOTE: *Release the bolt mechanism on the container so the dial will turn freely. Different containers have different release mechanisms.*



2. Insert the Change Key into the slot on the back of the lock.

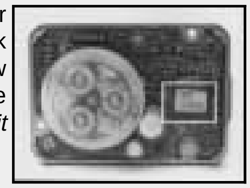


3. Dial to the left (counterclockwise). The Change Key symbol will appear in the display. The lock will never open when the Change Key symbol is displayed.



4. Enter the current combination or combinations again, example 50-25-50.

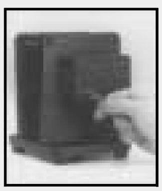
ALTERNATE METHOD TO SET OPERATING MODE



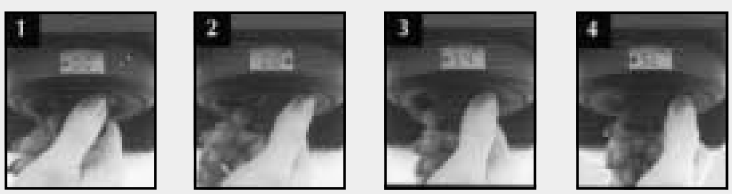
This alternate method replaces steps 1-4. If you have lost or forgotten the current combination and have access to the back of the lock, you can select a mode of operation to set new combinations using the serial number found on the inside cover of the lock. *This serial number will not open the lock; it will only allow you to set new combination.*



A. Dial an incorrect combination to obtain the Lightning Bolt error symbol.

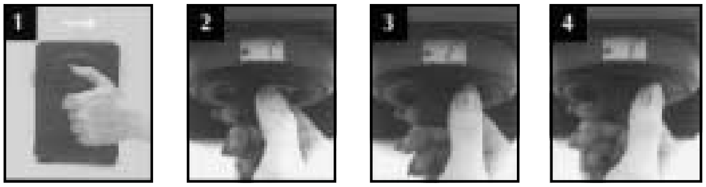


B. Insert the Change Key into the back of the lock.



C. Enter the serial number as the current combination: (Example 000054)
Dial:

Left to the first 2 digits of the serial number. Stop 00. (photo 1)
Right to the second 2 digits of the serial number. Stop 00. (photo 2)
Left to the third 2 digits of the serial number. Stop 54. (photo 3)
Right SL (select mode will be displayed) continue with Step 5. (photo 4)



5. Dialing right, the symbol SL (for Select Mode) will be displayed (photo 1). Now dial left to select the mode of operation:

1 — for Single Combination Mode (photo 2)

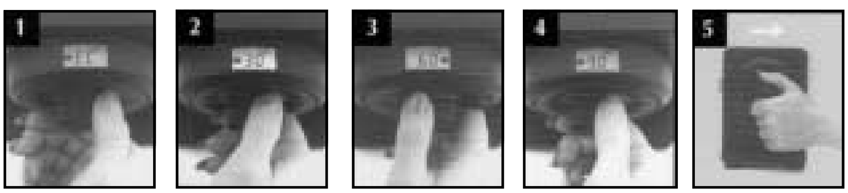
2 — for Dual Combination Mode (photo 3)

3 — for Supervisory/Subordinate Mode (photo 4)



6. Stop on the number of your selection. Now dial right to set the mode. The symbol EC or El will be displayed depending upon the mode selected.

SETTING COMBINATIONS



7a. If selection 1; Single Combination Mode was chosen:

(1) The symbol EC (for Enter Combination) will appear on the display (photo 1). Enter the desired combination by dialing the numbers in correct sequence: (Example 30-60-90)

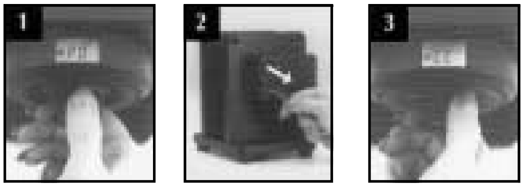
Dial:

Left (counterclockwise) to the first number. Stop. (photo 2)

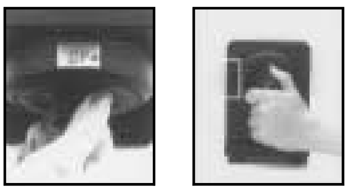
Right (clockwise) to the second number. Stop. (photo 3)

Left (counterclockwise) to the third number. Stop. (photo 4)

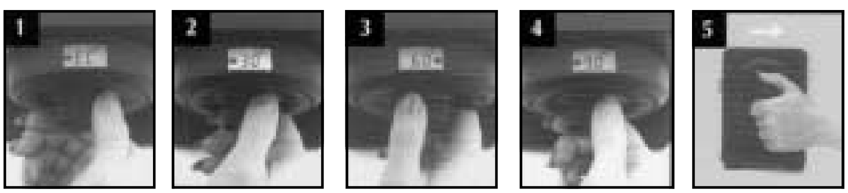
Right (clockwise) until display flashes the new combination. (photo 5)



(2) The display will flash the new combination three times and then display the symbol PO (for Pull Out Change Key) (photo 1). Remove the Change Key (photo 2). This will cause the Change Key symbol to disappear. The display will show the symbol CC (Confirm Combination(s)) (photo 3).



(3) To confirm the combination(s), redial the new combinations. When the symbol OP (OPen right) appears on the display, continue dialing to the right to retract the bolt. The combination is now set.



7b. If selection 2 or 3; Dual or Super/Sub Mode was chosen:

In Dual Combination Mode: Either of the two combinations can be entered first.

In Supervisory/Subordinate Mode: Supervisory combination must be entered first.

(1) The E1 symbol (enter first combination) will be displayed (photo 1). Enter the new first combination: (Example 30-60-90)

Dial:

Left to the first number. Stop. (photo 2)

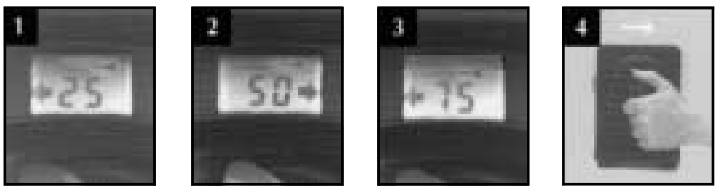
Right to the second number. Stop. (photo 3)

Left to the third number. Stop. (photo 4)

Right until display flashes new combination. (photo 5)

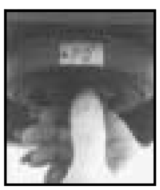


The display will flash the new combination three times then show the symbol E2 (Enter second combination).

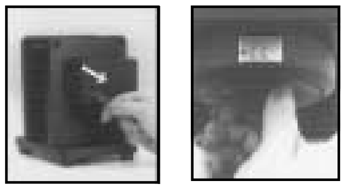


(2) Dial the new second combination in the correct sequence: (Example 25-50-75)
Dial:

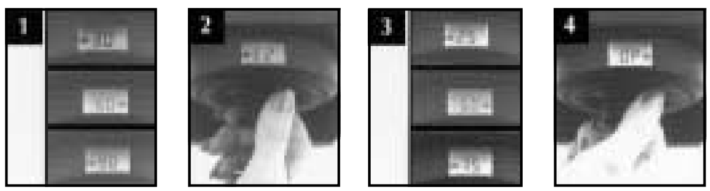
Left to the first number. Stop. (photo 1)
Right to the second number, Stop. (photo 2)
Left to the third number. Stop. (photo 3)
Right until display flashes the new combination. (photo 4)



The display will flash the new combination three times, then display the symbol PO (Pull Out Change Key).



(3) Remove the Change Key. This will cause the Change Key symbol to disappear. The display will show the symbol CC (Confirm Combination(s)).



(4) To confirm the combinations, redial the new combinations:

In Dual Combination Mode: Dial either of the new combinations (photo 1). The symbol E2 (Enter second combination) will be displayed (photo 2). Enter the remaining combination (photo 3).

In Super/Sub Mode: Dial Supervisory combination first (photo 1). The E2 (Enter second combination) will be displayed (photo 2). Dial in the Subordinate combination (photo 3).

When OP (OPen right) appears (photo 4), continue dialing right to retract the bolt.

The new combinations have now been set.

CHANGE A NEW COMBINATION DURING THE ENTRY PROCESS



If you change your mind about the new combination, you may cancel it when it is being flashed on the display screen. To do this, pull out the Change Key while the new combination is being flashed.







When the display stops flashing, it will re-display EC, E1 or E2 depending upon which combination you were entering. Now reinsert the Change Key and dial in the new combination of your choice.

NOTE: *If you misdial or do not properly finish the Change Key sequence in any way, the X-07 automatically reverts to the previous combination(s).* ***The old combination remains valid until a new combination is confirmed.*** *Let the lock completely power down and then try the combination again.*

CAUTION: *After you have confirmed your new combinations, make a record of the new numbers and test dial the combinations* ***before closing the door or container.***

LOCKOUT PREVENTION

If the door of your container is shut and the X-07 accidentally locked with the Change




Key still inserted in the Change Key slot, allow the lock to power down. (After 40 seconds the display will go blank. Wait an additional minute for full power down.) You can then open the lock by turning the dial to the **Right** until power up occurs (numbers appear). Then dial the current combination in the correct sequence.

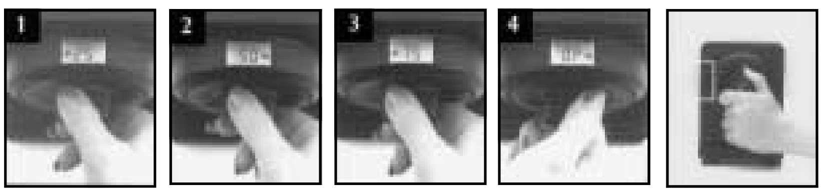
USING THE X-07

SINGLE COMBINATION MODE

In this mode the X-07 functions much like a standard combination lock. It will open any time the three-number combination is correctly dialed.



Dial left to “power up” the lock.



When numbers appear on the display, continue dialing: (Example 25-50-75)

Dial:

Left to the first number. Stop. (photo 1)

Right to the second number. Stop. (photo 2)

Left to the third number. Stop. (photo 3)

Right to OPen (photo 4), continue right to pull the bolt. (photo 5)

If the dial remains stationary for more than 40 seconds, the computer will reset (LCD will go blank) requiring the operator to redial the entire combination.

If you pass your number when dialing, please refer to page 3 or 18 for assistance.

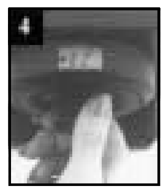
DUAL COMBINATION MODE

In this mode, two combinations must be correctly and consecutively entered to open the lock. Either combination may be entered first. However, the operator must begin entering the second combination within 40 seconds of the first combination.



First Operator:
Dial left to “power up” the lock.



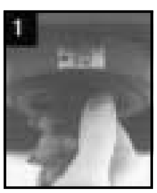



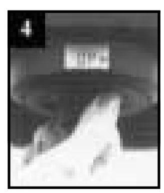
When numbers appear on the display, continue dialing: (Example 25-50-75)

Dial:

Left to the first number in the first combination. Stop. (photo 1)
Right to the second number in the first combination. Stop. (photo 2)
Left to the third number in the first combination. Stop. (photo 3)
Right to E2 displayed. (photo 4)

Now within 40 seconds; the second operator must begin.




Second Operator:

Dial: (Example 30-60-90)

Left to the first number in the second combination. Stop. (photo 1)
Right to the second number in the second combination. Stop. (photo 2)
Left to the third number in the second combination. Stop. (photo 3)
Right to OP (photo 4); continue right to pull the bolt. (photo 5)

If the dial remains stationary for more than 40 seconds the computer will reset (LCD will go blank) requiring the operator to redial both combinations.

If you pass your number when dialing, please refer to page 3 or 18 for assistance.

SUPERVISORY/SUBORDINATE MODE

In this mode, two combinations must be correctly dialed to open the lock. However, the Supervisory Combination must be dialed first to display UL (Unlocked). This allows the Subordinate combination holder(s) to gain access as often as desired by dialing the Subordinate Combination. Whenever the Super is redialed to display LU (Locked Up), the Subordinate holder(s) are again denied access.

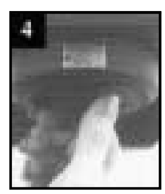
UNLOCK IN SUPERVISORY/SUBORDINATE MODE



Supervisory Operator:

Dial left to "power up" the lock.



When numbers appear on the display, continue dialing: (Example 25-50-75)

Dial:

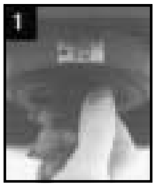
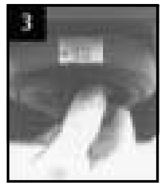
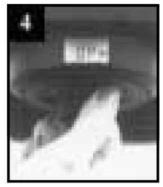
Left to the first number in the Supervisory combination. Stop. (photo 1)

Right to the second number in the Supervisory combination. Stop. (photo 2)

Left to the third number in the Supervisory combination. Stop. (photo 3)

Right to UL (Unlocked) is displayed. (photo 4)

The X-07 will now operate as if it were in a single combination mode-only the Subordinate combination is required to open the lock.

Subordinate Operator:

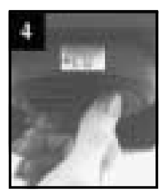
Dial: (Example 30-60-90)

Left to the first number in the Subordinate combination. Stop. (photo 1)
Right to the second number in the Subordinate combination. Stop. (photo 2)
Left to the third number in the Subordinate combination. Stop. (photo 3)
Right to OP (photo 4); continue right to pull the bolt. (photo 5)



The X-07 will continue to open as often as the Subordinate combination is redialed; that is, until the Super Combination is redialed displaying LU (Locked Up).

LOCK UP IN SUPERVISORY/SUBORDINATE

MODE

Supervisory Operator:

Dial: (Example 25-50-75)

Left to the first number in the Supervisory combination. Stop. (photo 1)
Right to the second number in the Supervisory combination. Stop. (photo 2)

Left to the third number in the Supervisory combination. Stop. (photo 3)

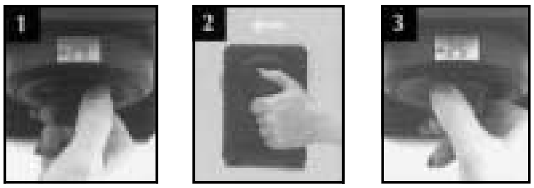
Right to LU (Locked Up) symbol is displayed. (photo 4)

This blocks entry of the Subordinate Combination holder(s) until the Supervisory Combination is redialed redisplaying UL (Unlocked).

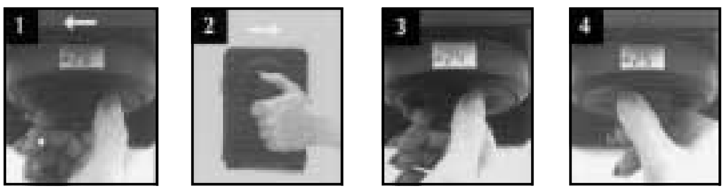
There may be unlimited delay between dialing of the Supervisory combination and dialing of the Subordinate combination. However, when dialing either combination if the dial remains stationary for more than 40 seconds, the computer will reset (LCD will go blank)

requiring the operator(s) to redial that combination.

If you pass your number when dialing, please refer to page 18 for assistance.



IF YOU PASS YOUR TARGET NUMBER WHEN



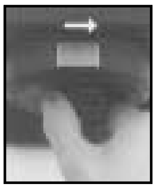
DIALING

A. Example: target number-25.
If you pass your target number by 4 or more (photo 1), continue dialing in the same direction (photo 2), until you reach the target number again (photo 3).

B. Example: target number-25.
If you pass the target number by no more than 3 numbers (photo 1), you may

reverse directions slowly (photo 2) and the display will “jump back” 4 numbers (photo 3).
Now you may dial slowly in the original direction to the target number (photo 4).

USING THE AUDIT FEATURES OF YOUR X-07



Your X-07 keeps count of the number of successful openings. It will also alert you if there have been 3 or more unsuccessful attempts to open the lock.



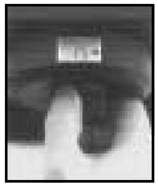
CHECK THE NUMBER OF SUCCESSFUL OPENINGS



Dial **Right** when the lock is powered down (screen blank and no dialing for 2 minutes). After the lock is powered up it will alternately flash two pairs of numbers.

The number with the arrow flashing left represents the first two numbers of the suc-



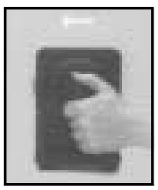


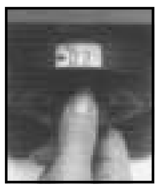
cessful opening count.

The number with the arrow flashing right represents the last two numbers in the opening count.

For example: 00 (arrow left) and 15 (arrow right) means the lock has been successfully opened a total of 0015 times.

The successful openings count **does not** re-set. The number will reflect the total





number of times the X-07 has been opened since it was manufactured. When the X-07 has been opened 9,999 times, the count will begin again at 0 and continue to increment.

CHECK UNSUCCESSFUL ATTEMPTS COUNT

A. Dial left when the lock is powered down (screen blank).

OR

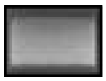
B. Dial left, after checking the successful openings count.

The count will be represented by a two digit number with a Lightning Bolt symbol. When the count is displayed, stop.

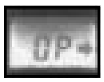
After you have seen the count, continue dialing left to enter the combination.

The unsuccessful attempts count will be **displayed only when 3 or more** incorrect combinations have been entered. The count resets to 0 whenever the correct combination is entered. If the number of attempts exceeds 99, the count will remain at 99 until reset.

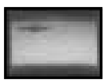
GUIDE TO SYMBOLS



Blank Display
The lock has been reset or is powered down.



O P
Open Right



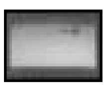
Lightning Bolt
Incorrect Combination Dialed. (When this symbol appears in the upper left corner of the display, simply redial combination.)



U L
Unlocked



L U
Lock Up



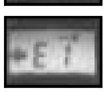
Key
Change Key Symbol (The Change Key has been inserted and the lock is in Change Combination Mode.)



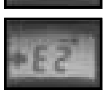
S L
Select Mode of Operation



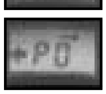
E C
Enter Combination



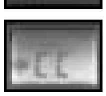
E 1
Enter First Combination



E 2
Enter Second Combination



P O
Pull Out Change Key



CC
Confirm Combination or Combination(s)

CE FUNCTION

The covert entry function is used to indicate that the normal operation of the X-07 has been compromised. The following section describes the unique operations of the CEX-07. You should be familiar with the operation of the X-07 as described in the preceding sections.

NORMAL OPERATION

1. Start dialing to the left (CCW). The lock will display CA if access is allowed to the lock. If CE is displayed, refer to the section on covert entry below.
2. Continue to open the lock in the same manner as the X-07.

COMBINATION CHANGE

The Change Key for combination change is not recognized on lock power up. It is recognized if inserted during (not before) the lightning bolt error display, or if it is inserted before the lock is closed, and while power is still up on the lock. It is also recognized if inserted during the open counter display (not before) when dialing clockwise to change the covert entry combination. If direction is reversed during the open counter display, the Change Key is not recognized.

Combination change is the same as the standard X-07. The select menu is the same as on the standard X-07.

The serial number can be used to enter the select menu with the Change Key in.

Dialing right (CW) on lock startup will display the number of openings and then the lock level, except as noted below during a covert entry condition and when the Change Key is inserted.

COVERT ENTRY

A covert entry condition is indicated by CE displayed upon lock start up. If there is not a covert entry condition on the lock, CA will be displayed to indicate the covert entry detection is active.

A covert entry is set from the following four conditions:

1. The bolt being forced when there is not a valid combo.
2. The lock being dialed while the last open does not have a matching close. (The lock requires over a turn to start into dialing. It should not be mechanically possible to turn that far while the bolt is retracted.) The reed switch monitoring the bolt may have been tampered with.
3. The lock being dialed to OP during a valid open, but not retracting the bolt within 15 seconds of the stepper motor firing.
4. The lock getting a close without a matching open. The reed switch monitoring the bolt may have been tampered with.

Normal combinations and the serial number will not work while the lock has a covert entry set.

RESETTING COVERT ENTRY AND COVERT ENTRY COMBINATION CHANGE

This procedure works only if the lock is powered down with the Change Key out of the lock.

Dialing to the right (CW) on lock startup will display the open counter. If the open counter is not displayed, the lock has not yet powered down. If there is a covert entry or the Change Key is in, continuing to dial to the right will result in dialing an ID. The ID is selected when direction is reversed. The lock level is not displayed when the Change Key has been inserted or there has been a covert entry. Instead, the numbers for selecting an ID are displayed.

Dial to 99 and reverse directions. After reversing directions, dial the covert entry combo starting to the left as with the other combinations. If the combination is correct, the covert entry condition will be reset.

The default covert entry combination is 50 25 50.

To change the covert entry combination, dial to the right until the open counter is displayed. The Change Key needs to be inserted during the open counter display. If it is in before the open counter display, it will not be recognized. Begin by dialing right to ID 99 and then dialing the current covert entry combination. If the combination is correct, you will be able to enter and confirm the new covert entry combo the same as changing a single normal combination. The lock will open upon completing the combination change.

RECOVERING IF THE COVERT ENTRY COMBINATION IS FORGOTTEN

With a covert entry condition on the lock, the lock can be opened by dialing the correct combination 5 times in a row successfully. The lock must stay powered up between the combinations. A lightning bolt will be displayed between each combination. The CE condition is not reset.

If in dual combination mode, both combinations must be dialed 5 times in a row successfully.

If in supervisor/subordinate mode, the lock can still be set between locked up and unlocked status with the supervisor combination. The lock needs to be in unlocked status and the subordinate combination dialed 5 times in a row successfully.

Once the lock is opened, the serial number can be obtained from inside the back cover of the lock.

With a CE condition on the lock and the Change Key inserted, the CE reset combination can be changed as follows:

1. Dial the combination to the lock. Enter Serial number (ES) will be shown.
2. Dial the serial number. Enter Combination (EC) will be shown.

3. Dial the new CE reset combination. Pull Out Change Key (PO) will be shown.
4. Pull out the Change Key. Confirm new CE reset combination (CC) will be shown.
5. Dial the new CE reset combination.

This will change the CE reset combination. It does not clear the CE condition on the lock. The CE reset combination can be used once the lock has powered down.

GUIDE TO SYMBOLS - CE FUNCTION

C E
A Covert Entry condition exists.

CA
Covert Entry detection is active and access to the lock is allowed.

Document Number 000.111 Rev. D 11/98
Converted to Acrobat 08/00

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